

WHAT IS CLAIMED IS:

- Sub B1*
1. A golf ball comprising:  
a multi-layer core comprising a center component  
and a core layer disposed about said center component;  
wherein said center component comprises a  
5 thermoset material and said core layer comprises a  
thermoset material; and,  
a cover layer disposed about said multi-layer  
core;  
wherein said cover layer includes at least one of  
10 (i) a multi-layer cover comprising an inner cover layer  
having a Shore D hardness of 65 or greater and an outer  
cover layer having a Shore D hardness of 65 or less, said  
inner cover layer being harder than said outer cover layer,  
(ii) a multi-layer cover comprising an inner cover layer  
15 having a Shore D hardness of 65 or less and an outer cover  
layer of 65 or greater, wherein said inner cover layer is  
softer than said outer cover layer, (iii) a single non-  
ionomeric outer cover layer having a Shore D hardness of  
from about 40 to 80, and (iv) a single ionomeric outer  
20 cover layer having a Shore D hardness of at least 56.
2. The golf ball of claim 1 wherein the outer cover  
layer is selected from multi-layer cover (i) or multi-layer  
cover (ii).
- indefinite*
3. The golf ball of claim 1 wherein said thermoset  
material comprises a material selected from the group  
consisting of (i) a diene-containing polymer, (ii) a  
metallocene catalyzed polyolefin that is cross-linked,  
5 (iii) a polyurethane, (iv) a silicone, (v) a polyamide,  
(vi) a polyurea, and (vii) combinations thereof; and said  
thermoplastic material comprises a material selected from  
the group consisting of (i) an ionomer, (ii) a  
polyurethane, (iii) an elastomer, (iv) a polyetheramide,  
10 (v) a polyetherester, (vi) a metallocene catalyzed
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polyolefin, (vii) a styrene butadiene block copolymer, and (viii) combinations thereof.

Sub B'  
4. The golf ball of claim 1 wherein said core layer comprises more than one layer.

5. The golf ball of claim 1 wherein said center component thermoset material comprises a polybutadiene rubber.

6. The golf ball of claim 5 wherein said thermoset polybutadiene rubber further comprises zinc diacrylate (ZDA).

7. The golf ball of claim 1 wherein said core layer thermoset material comprises polybutadiene rubber.

8. The golf ball of claim 7 wherein said polybutadiene rubber further comprises zinc diacrylate (ZDA).

9. The golf ball of claim 1 wherein said center component of said multi-layer core has an outer diameter of from about 1.340 inches to about 1.400 inches, and said  
5 core layer of said multi-layer core has an thickness of from about 0.020 to about 0.100 inches.

10. The golf ball of claim 1 wherein said center component of said multi-layer core is softer relative to said core layer.

11. The golf ball of claim 10 wherein said core layer has a Shore D hardness of at least 60.

12. The golf ball according to claim 1 wherein each layer in the multi-layer cover (i) and multi-layer cover

(ii) is independently formed from a thermoplastic resin, a thermoset resin, or a blend thereof.

13. The golf ball according to claim 2 wherein the multi-layer cover (i) or multi-layer cover (ii) comprises at least one ionomeric material.

14. A golf ball comprising:

a multi-layer core comprising a center component and a core layer disposed about said center component;

wherein said center component comprises a polybutadiene thermoset material and said core layer comprises a polybutadiene thermoset material; and,

a cover layer disposed about said multi-layer core;

wherein said cover layer includes at least one of  
5 (i) a multi-layer cover comprising an inner cover layer having a Shore D hardness of 65 or greater and an outer cover layer having a Shore D hardness of 65 or less, said inner cover layer being harder than said outer cover layer,  
(ii) a multi-layer cover comprising an inner cover layer  
10 having a Shore D hardness of 65 or less and an outer cover layer of 65 or greater, wherein said inner cover layer is softer than said outer cover layer, and (iii) a single non-ionomeric outer cover layer having a Shore D hardness of from about 40 to 80, and (iv) a single ionomeric outer cover layer having a Shore D hardness of at least 56.

15 15. The golf ball according to claim 14 wherein the cover layer is selected from multi-layer cover (i) or multi-layer cover (ii).

16. The golf ball of claim 14 wherein said thermoset material further comprises zinc diacrylate (ZDA).

17. The golf ball of claim 14 wherein said core layer comprises more than one layer.

18. The golf ball of claim 14 wherein said center component of said dual core comprise is softer relative to said core layer.

19. The golf ball of claim 11 wherein said core layer has a Shore D hardness of at least 60.

20. A golf ball comprising:

a multi-layer core comprising a center component and a core layer disposed about said center component;

wherein said center component comprises a polybutadiene/ZDA thermoset material and said core layer comprises a polybutadiene/ZDA thermoset material; and,

a multi-layer, ionomeric cover layer disposed about said dual core;

wherein said cover layer includes at least one of

- 5 (i) a multi-layer cover comprising an inner cover layer having a Shore D hardness of 65 or greater and an outer cover layer having a Shore D hardness of 65 or less, said inner cover layer being harder than said outer cover layer, and (ii) a multi-layer cover comprising an inner cover layer having a Shore D hardness of 65 or less and an outer  
10 cover layer of 65 or greater, wherein said inner cover layer is softer than said outer cover layer.